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10/719,631

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Amis E. Peters

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EXAMINER

AUSTIN, AARON

ART UNIT

PAPER NUMBER

1775

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/719,631

Applicant(s)

PETERS ET AL.

Examiner

Aaron S. Austin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-17 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-17 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanikita et al. (U.S. Patent No. 5,833,889).

Tanikita et al. teach a lamp reflector for automobiles (column 5, lines 24-25) a resin film, such as a polyamide (of which nylon is an example) (column 3, line 24), with a thickness of 0.1 to 0.5 mm (column 3, lines 29-30) on which aluminum is deposited in a thickness of 1,000 angstroms (column 4, lines 51-53). In a series of examples, the base resin to which the aluminum is applied contains 30% by weight of glass fibers (column 4, lines 49-50). One of the examples incorporating glass fibers includes a polyamide as the resin film (Table XX1), of which nylon is an example. The decorative surface of the aluminum serves as “a lamp reflector having a light reflective surface F with high imaging properties” (column 4, lines 15-17). The phrase “decorative automobile trim piece” is considered intended use.

Claims 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Marton et al. (U.S. Patent No. 4,241,129).

Marton et al. teach a decorative automobile trim piece (column 10, line 66) comprising a metal sheet 7 having a reflective and/or decorative surface (abstract). The metal sheet 7 is less than 1 micrometer in thickness (column 7, line 16) and is preferably formable (column 9, line 28). Intimately bonded to the metal sheet 7 is a thermoplastic polymer resin layer 3 (column 2, line 66 to column 3, line 3). The thickness of the thermoplastic polymer is in the range of 2 to about 10,000 micrometers (column 4, line 18).

Regarding the "preshaped" limitation of the claims, Marton et al. teach the composite is prepared by any conventional method, such as lamination (column 7, line 14), for making multi-layer metal/organic polymer composites wherein the layers of metal and polymer adhere to each other (column 8, lines 22-26). Further, this language is indicative of product by process claims. The above arguments establish a rationale tending to show the claimed product is the same as what is taught by the prior art. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 227 USPQ 964,966. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art,

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although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), MPEP 2113.

Regarding claim 13, the metal sheet 7 may be aluminum (column 4, line 46).

Regarding claim 14, the resin layer 3 may include reinforcement fillers and fibers (column 4, line 5). Exemplary reinforcing fibers are glass fibers (column 10, lines 49-50).

Regarding claim 15, the resin layer 3 may be formed of polyamides such as nylon (column 3, lines 52-53). The resin layer 3 may include reinforcement fillers and fibers (column 4, line 5). Exemplary reinforcing fibers are glass fibers (column 10, lines 49-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanikita et al. (U.S. Patent No. 5,833,889).

Tanikita et al. teach a lamp reflector for automobiles as described above.

Further, a glass filled polyamide is taught in Table XX1 of Tanikita et al. (see the Table

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and column 4, lines 45-56). Further, nylon is a thermoplastic polyamide (see OneLook Dictionary found at OneLook.com). However, the specification fails to state the polyamide is specifically nylon. Therefore, as a glass filled polyamide is taught and as nylon is a polyamide, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to form the glass filled resin taught by Tanikita et al. of nylon.

Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanikita et al. (U.S. Patent No. 5,833,889) in view of Hashimoto (JP01-114407).

Tanikita et al. teach a lamp reflector for automobiles as described above. Further, an adhesive primer may be used to enhance the adhesive properties of the metal coating with the resin (column 2, lines 61-64).

Tanikita et al. do not teach the adhesive primer as being a hot melt adhesive.

Hashimoto teaches preparation of a composite for decorating an automobile body wherein a resin and a metal foil are firmly integrated through implementation of a hot-melt adhesive therebetween (abstract and accompanying figure). Therefore, as it is clearly taught by Hashimoto that using a hot-melt adhesive to join a metal foil and a resin substrate provides the advantage of firm adhesion (abstract), it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to locate a hot-melt adhesive as the adhesive primer between the metal surface and the resin layer of the lamp reflector taught by Tanikita et al. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marton et al. (U.S. Patent No. 4,241,129) in view of either Tanikita et al. (U.S. Patent No. 5,833,889) or Grefenstein et al. (International Application No. PCT/EP00/05755, U.S. equivalent: Patent Application Publication No. 2006/0029809).

Marton et al. teach a decorative automobile trim piece as described above.

Marton et al. do not teach the amount of glass fibers by weight used as the reinforcement fibers of the thermoplastic polymer.

Tanikita et al. teach a lamp reflector for automobiles (column 5, lines 24-25) including a base resin to which aluminum is applied containing 30 wt% of glass fibers (column 4, lines 49-50). The resin may be a polyamide (of which nylon is an example) (column 3, line 24). Therefore, as Tanikita et al. clearly teach a resin containing 30% by weight of glass fibers provides the advantage of structural reinforcement suitable for automobile trim, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include the glass fiber filler of Marton et al. in an amount of 30 wt%. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

In the alternative, Grefenstein et al. teach a backmolded polymer molding for use in the automotive sector, such as for trim (paragraphs [0017] and [0108] of U.S. equivalent) comprising a backmolded fiber reinforced thermoplastic having a fiber content of from 5 to 30 wt%, such as glass fiber (paragraphs [0014], [0016] and [105] of U.S. equivalent). Thermoplastic polymers include polyamides of which nylon is an example. Therefore, as Grefenstein et al. clearly teach a thermoplastic resin containing

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5 to 30 wt% of glass fibers provides the advantage of structural reinforcement suitable for automobile trim, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include the glass fiber filler of Marton et al. in an amount of 5 to 30 wt%. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marton et al. (U.S. Patent No. 4,241,129) in view of Hashimoto (JP01-114407).

Marton et al. teach a decorative automobile trim piece as described above. Further, they disclose it may be desirable to treat the surface of the polymer substrate layers to enhance bonding between the metal and the polymer (column 8, lines 51-53).

Marton et al. do not teach a hot melt adhesive located between the metal and the polymer.

Hashimoto teaches preparation of a composite for decorating an automobile body wherein a resin and a metal foil are firmly integrated through implementation of a hot-melt adhesive therebetween (abstract and accompanying figure). Therefore, as it is clearly taught by Hashimoto that using a hot-melt adhesive to join a metal foil and a resin substrate provides the advantage of firm adhesion (abstract), it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to locate a hot-melt adhesive between the metal and the polymer layer of the automobile trim taught by Marton et al. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Claims 12-14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeny (EP 0376010 A2) in view of Marton et al. (U.S. Patent No. 4,241,129).

Sweeny teaches an automotive quality, laminate article and method of production thereof (abstract). The article comprises pre-shaped metal veneers and inner substrates formed in situ and bonded to the inner surface of the veneers (column 3, lines 1-16). The metal may be aluminum (column 4, line 1) and may have an exemplary thickness of 0.025 inches or .015 inches (Examples 1 and 2). The substrate is formed of resins such as polyester, epoxy, phenolic, and the like and may include impregnated fiber materials (column 4, lines 1-27), such as glass filled fiber materials (column 9, line 12). Adhesion of the metal to the substrate may be improved through use of metal pretreatments or promoters (columns 4 lines 35-53).

Sweeny does not specifically teach the resin layer as having a thickness of no greater than 2.5 mm.

Marton et al. teach a decorative automobile trim piece (column 10, line 66) comprising a metal sheet 7 having a reflective and/or decorative surface (abstract). The metal sheet 7 is less than 1 micrometer in thickness (column 7, line 16). Intimately bonded to the metal sheet 7 is a thermoplastic polymer resin layer 3 (column 2, line 66 to column 3, line 3). The thickness of the thermoplastic polymer is in the range of 2 to about 10,000 micrometers (column 4, line 18). Therefore, as Marton et al. clearly teach the thickness in the range of 2 to about 10,000 micrometers for a polymer resin member of a metal/resin composite provides the advantage of use as automobile trim, it would

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have been obvious to one of ordinary skill in the art at the time of the claimed invention to form the automobile trim of Sweeny with the thickness of the resin layer of the composite in the range of 2 to 10,000 micrometers. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the thickness and glass fiber content for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 13, a pre-shaped aluminum sheet is taught (Example 1).

Regarding claim 14, the resin layer may include impregnated fiber materials (column 4, lines 1-27), such as glass filled fiber materials (column 9, line 12).

Regarding claim 17, Sweeny teaches a hot melt process (column 10, lines 29-37) implementing an adhesive in the form of an adhesion promoter (column 9, line 43).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeny (EP 0376010 A2) in view of Marton et al. (U.S. Patent No. 4,241,129), and further in view of Luch (U.S. Patent No. 4,429,020).

Sweeny in view of Marton et al. teaches an automotive quality, laminate article and method of production thereof as described above.

Sweeny does not teach the glass filled resin as being a nylon resin.

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Sweeny et al. teach the resin may be glass filled and may be selected from polyester, epoxy, phenolic, and the like, as noted above (column 4, line 23).

Polyamides are included as like polymers to polyesters, etc. as used in metal polymer composites for use as automobile trimmings (see the abstract of U.S. Patent No. 4,429,020 to Luch). Therefore it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to form the resin layer taught by Sweeny et al. of a glass filled nylon resin.

Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeny (EP 0376010 A2) in view of Marton et al. (U.S. Patent No. 4,241,129), and further in view of either Tanikita et al. (U.S. Patent No. 5,833,889) or Grefenstein et al. (International Application No. PCT/EP00/05755, U.S. equivalent: Patent Application Publication No. 2006/0029809).

Sweeny in view of Marton et al. teaches an automotive quality, laminate article and method of production thereof as described above.

Sweeny does not teach the amount of glass fibers by weight used as the reinforcement fibers of the thermoplastic polymer.

Tanikita et al. teach a lamp reflector for automobiles (column 5, lines 24-25) including a base resin to which aluminum is applied containing 30 wt% of glass fibers (column 4, lines 49-50). The resin may be a polyamide (of which nylon is an example) (column 3, line 24). Therefore, as Tanikita et al. clearly teach a resin containing 30% by weight of glass fibers provides the advantage of structural reinforcement suitable for

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automobile trim, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include the glass fiber filler of Sweeny in an amount of 30 wt%. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

In the alternative, Grefenstein et al. teach a backmolded polymer molding for use in the automotive sector, such as for trim (paragraphs [0017] and [0108] of U.S. equivalent) comprising a backmolded fiber reinforced thermoplastic having a fiber content of from 5 to 30 wt%, such as glass fiber (paragraphs [0014], [0016] and [105] of U.S. equivalent). Thermoplastic polymers include polyamides of which nylon is an example. Therefore, as Grefenstein et al. clearly teach a thermoplastic resin containing 5 to 30 wt% of glass fibers provides the advantage of structural reinforcement suitable for automobile trim, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include the glass fiber filler of Sweeny in an amount of 5 to 30 wt%. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen (GB 2027636A) in view of Vuilleumier (US 5,220,541).

Bowen teaches a method of forming raised figures on a dial plate and the article produced thereby. The article includes an insert in the form of a dial plate having at least one hole and may consist of metal (page 1, lines 116-119). The dial plate has a decorative surface including a preformed skin on one side and a backing on the

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opposing side, both in the form of finish surfaces (page 2, lines 4-7). A thermoplastic resin is applied to the back of the dial plate backing and protrudes through the hole(s) in the dial plate to form resin features in association with the dial plate surface (page 1, lines 80-90 and page 2, lines 8-44). The resin may be formed of a wide range of thermoplastic materials that best suit the final decorative appearance and finish, including broad ranges of finish and color (page 1, lines 87-89 and 95-97).

Bowen does not teach a feature formed on the insert outside of the resin feature formed in the holes.

Vuilleumier teaches a watch movement including implementation of features on the dial plate including chronograph functionality depicted by hands, markings and numbers. Therefore, as Vuilleumier clearly teaches chronographic features provide the advantage of chronographic functionality on a watch dial plate, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to apply chronographic features as taught by Vuilleumier to the dial plate taught by Bowen. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Response to Arguments

Applicant's arguments with respect to:

1. Claims 20-23 over Bowen;
2. Claims 15 and 17 over Tanikita in view of Sweeny; and

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3. Claims 12-17 over Sweeny (EP 0376010 A2) in view of Grefenstein et al. (International Application No. PCT/EP00/05755, U.S. equivalent: Patent Application Publication No. 2006/0029809), and further in view of Luch (U.S. Patent No. 4,429,020) have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed November 2, 2006 with respect to rejection of claims 12-16 over Tanikita et al. have been fully considered but they are not persuasive. Particularly, Applicant argues Tanikita et al. do not teach the newly added limitation of a "preshaped" metal sheet. However, this language is indicative of product by process claims. The above arguments establish a rationale tending to show the claimed product is the same as what is taught by the prior art. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964,966. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), MPEP 2113.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

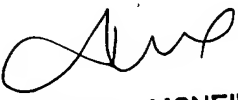
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron S. Austin whose telephone number is (571) 272-8935. The examiner can normally be reached on Monday-Friday: 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASA


JENNIFER MCNEIL
SUPERVISORY PATENT EXAMINER
1/19/04